

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

May 1935

AN IMPROVED CYANIDE KILLING JAR

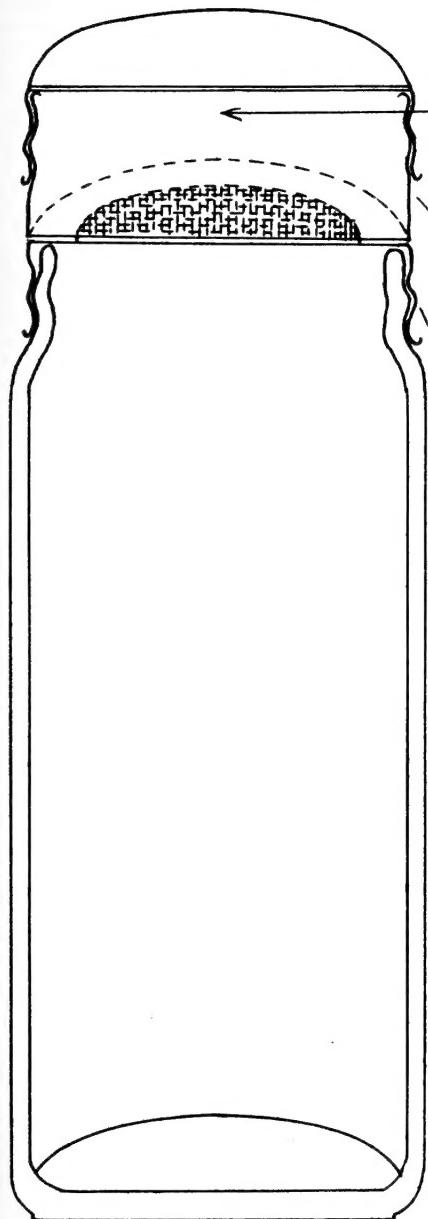
By W. J. Buckhorn, Division of Forest Insect Investigations,
Bureau of Entomology and Plant Quarantine,
U. S. Department of Agriculture

The usual type of killing jar, in which cyanide crystals are imbedded in plaster of paris at the bottom of the jar, has the disadvantages that the jars cannot be washed or easily cleaned and it is difficult to replace the cyanide. An improved type of cyanide jar was designed and constructed last year to overcome these faults and after a season of use has been found so satisfactory that its description seems desirable.

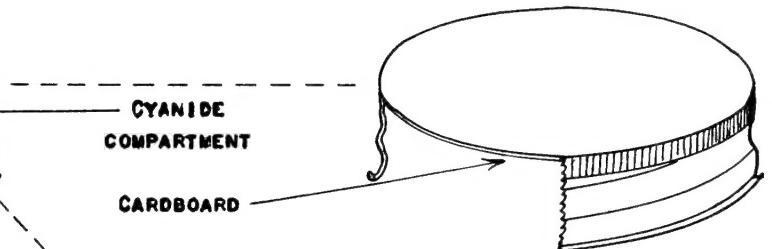
Standard sized 8-ounce glass jars with screw tops 2 inches in diameter were used for the purpose, and extra tops were equipped with a cyanide compartment. By substituting the cyanide tops for the ordinary tops, any number of jars could be temporarily converted into killing jars, thus avoiding the necessity of extra handling and transferring insects from one jar to another. By replacing the ordinary top to retain the fumes after the insects had become inactive, various lots of insects in different jars could be killed in rapid succession. The ease with which the jars can be cleaned and new cyanide added are especially desirable features.

Materials necessary for constructing a cyanide top consist of 1 screw-top jar lid, 1 tin collar and cap, a piece of brass strainer screen, blotting paper, sealing wax, and solder. The tin collar and cap are standard parts used in the manufacture of spouts for tin cans and can be purchased from any can manufacturing company. The total cost for materials should not exceed 12 cents per top.

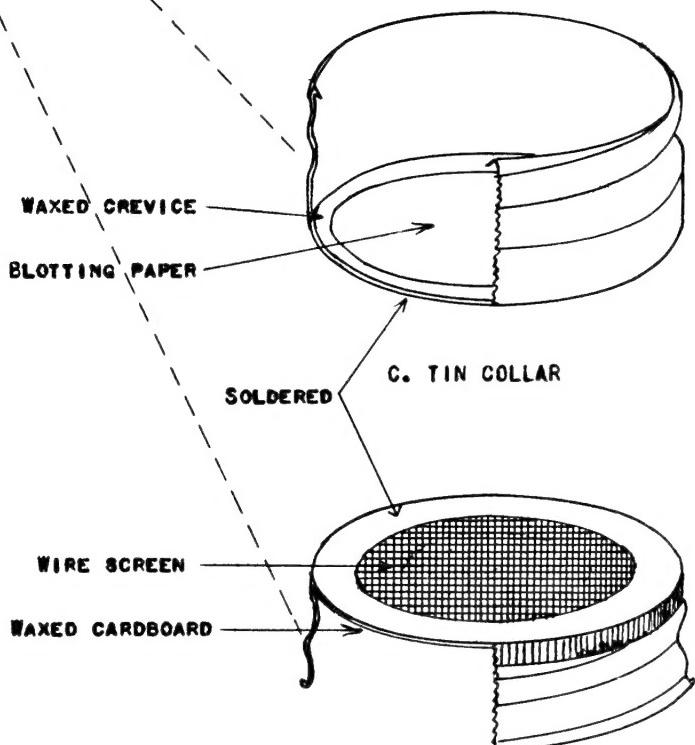
In preparing the cyanide top, a circular opening $1\frac{1}{2}$ inches in diameter is cut in the center of a regular 2-inch tin screw-top jar lid and through the cardboard washer. On the top side of this lid a piece of screen large enough to cover the opening but smaller in diameter than the lid is soldered in place. Then the bottom edge of a tin collar is soldered to the top of the lid. The cyanide compartment thus formed should be lined with blotting paper, which is sealed to the collar with melted asphalt or paraffin. The compartment is then filled with cyanide crystals broken into pieces small enough to fit into the container. The tin cap is screwed tightly into place and the job completed. If properly constructed, the cyanide top should last almost indefinitely, and one charge of cyanide should last about 3 years.



A. GLASS JAR.



B. TIN CAP.



C. TIN COLLAR

D. SCREW TOP JAR LID.

Figure 1. - Diagram of jar and cyanide cover.

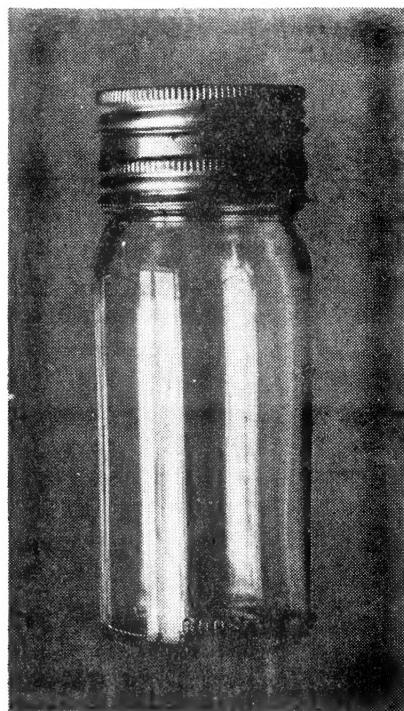


Figure 2. - Jar with
cover attached.



Figure 3. - Jar with cover
tilted to show screen.

